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## PATENT ABSTRACTS OF JAPAN

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(30) Priority:		(71) Applicant: NIPPON STEEL CORP
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## (54) EXHAUST MANIFOLD

## (57) Abstract:

PURPOSE: To contrive the improvement of heat insulation by dividing a multi- branch pipe structure into two parts in a direction orthogonal with the direction of an axial line and forming each member by a fine ceramics-made inner side pipe unit, porous ceramics-made heat insulating elastic layer and a metal-made outer side pipe unit.

CONSTITUTION: A multi-branch pipe structure, collecting exhaust gas from its inflow ports 2 to outflow port 3, is divided into two parts in a direction orthogonal with the direction of an axial line. Each member is formed into a triple pipe structure comprising an inner side pipe unit 4 consisting of fine ceramics sintered material, heat insulating elastic layer 5 consisting of porous ceramics molded material and a metal-made outer side pipe unit 6. In this way, the heat insulation can be improved with a heat transfer rate decreased.

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